

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	Michael Wefers
Application No. 10/797,860	Filing Date: March 10, 2004
Title of Application:	Dried Food Product
Confirmation No. 3716	Art Unit: 1761
Examiner	Sarah L. Kuhns

Mail Stop Amendment Commissioner for Patents Post Office Box 1450 Alexandria, VA 22313-1450

Affidavit under 37 CFR §1.132

- 1. I, Mr. Michael Wefers, of Westerlandanger 10, D-81929 Munich, Germany affirm and state the following:
- 2. I am the inventor of U.S. Patent Application Serial No. 10/797,860.
- 3. I have analyzed U.S. Patent No. 4,341,803 to Koshida et al. ("the '803 patent").
- 4. The dried food product that results from the method taught in the '803 patent differs substantially from the dried food product resulting from the method taught in the present application.

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- 5. The steps of the methods taught in the '803 patent include freeze drying, whereas the method of the present application requires pre-drying. These differing steps lead to very different dried food products.
- 6. The method of the present invention exposes the food to atmospheric conditions, such that, shrinkage occurs due to the different partial pressure differences and dehydration during the drying procedure (to approx. 20% of the initial volume), which leads to a change in the cell structure (i.e. the cells break-up), as taught in the specification.
- 7. Alternatively, the method taught in the '803 patent does not expose the food product to the atmosphere and only slight shrinkage takes place due to the vacuum (to approx. 95% of the initial volume), which leads to very minimal cell structure changes.
- 8. The differences in the final food product produced by the present inventive method when compared to the final food product produced by the method taught in the '803 patent are as follows:
- a. The color is more intense and darker. Due to the oxygen present in the atmosphere in pre-drying step, an oxidation on the product surface takes place, leading to a more attractive, intense and darker color of the final food product;
- b. The taste is stronger and more intense. At entry of the food product to the vacuum in step two of the present method, a sudden puffing of the collapsed cell structures occurs due to the pressure differences (product interior approx. = 1000 mbar /

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ambient pressure approx. = 20 mbar), which leads to a cell disruption. This causes the

taste components within the cells to be set free and thus reach the taste nerves of the

tongue in a quicker and more intense manner;

C. The nutrient uptake for the consumer is faster. Due to the physical meth-

ods described above, a faster uptake of nutrients is possible because of the cell disrup-

tion;

d. The structure is crisp and crunchy. Since during the initial freeze-drying

step taught in the '803 patent, the structure of the product is generally retained, a Styro-

foam-like character results, which corresponds to the freeze-dried products. A largely

homogenous cell structure is seen when cutting up products manufactured according to

this process, while the products manufactured by the presently claimed method show a

disrupted cell structure leading to the crispy and crunchy effect; and

Rehydration is non-uniform and generally slower. Through the partially e.

destroyed cell structures that result from the presently claimed method, the rehydration

time is generally slower and more uneven than the products manufactured according to

the method taught in the '803 patent, where the cell structures have generally not be

damaged.

9. I further declare that all statements made herein of my own knowledge are true

and that all statements made on information and belief are believed to be true; and fur-

ther that these statements were made with the knowledge that willful false statements

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and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

17. oct. 2001

Dated

Michael Wefers